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ORIGINAL ARTICLES.

A CASE OF TRAUMATIC ENOPHTHALMUS.

BY SWAN M. BURNETT, M.D., PH.D., WASHINGTON, D. C.

THE recession of the globe into the orbital cavity following severe traumatic injury to the orbital walls or the adjacent parts has been explained in various ways. It has been supposed that the trouble is trophic and due to interference with the vaso-constrictors of the sympathetic (Beer). Another theory is a cicatricial adhesion between the walls and the contents of the orbit (v. Becker) It has been assumed, again, that there is a contractile inflammation of the fatty tissue of the orbit (Nieden, Gessner). Still another theory refers it to fracture of the base of the orbit (Lang).

The following case is reported as a contribution to a further fuller study of this interesting condition:

Sam Anderson, a colored man, aged 43 years, was admitted into the Providence Hospital March 25, 1899, from Greenville, S. C., with a note from Dr. J. W. Bailey, of that city, giving a very meager history of a severe injury received during an encounter with a vicious cow, November 23, 1898. The exact manner in which the injury was received was not given, but there was as the result, when seen by him, a long deep wound over the right brow; "the left eye was mashed flat, and the tear duct was practically torn out." There was great swelling of the eyelids and "an exceedingly stubborn conjunctivitis of the left eye." The wounds were sutured, but the

patient was not seen again for some time. The patient was soon after seized with la grippe.

When seen by me at the hospital on the above date he presented the appearance shown in the accompaning illustration made from a photograph. There is a deep shrunken cicatrix involving the outer third of the right eyebrow, extending slightly below on the temple and for some distance on the forehead above. There is quite a deficiency of bone, but it does not seem to extend into the orbital cavity. The move-

ments of this eye are unrestricted in every direction. The left eye is sunken deep into the orbit and the sulcus above the upper lid is enormously exaggerated, giving the appearance of a badly-fitting artificial eye that is nearly always noted in enophthalmus. The apex of the cornea is, in the right eye, about 1.5 cm. in front of the outer orbital angle, while in the left it is not more than 5 mm. beyond, a difference of at least 1 cm. The upward movement of the left eye is limited, the outward movement is still more restricted, while the motion downward is almost entirely lost; the movement inward is

about normal. The elevation of the upper lid is not so extensive as that of the right eye, but that may not be due to an involvement of the levator, but to mechanical causes. The palpebral opening is the same in both, that is, about 1 cm. when the eyes are in a state of rest, with fixation in the horizontal plane. The orbicularis acts normally. The corneæ in both eyes are normal, and the irides are healthy. In the right no fundus is visible, the vitreous being filled with a uniform dense opacity, most probably the sequence of a hæmorrhage. In the left there is a deposit, apparently of pigment, on the anterior surface of the lens near the periphery, down and out; otherwise the pupil is clear, and through this the nerve head is seen to be of normal color with a normal distribution of the retinal vessels, with the exception of some white streaks or bands which border the large veins below, due, most likely, to a hæmorrhage into the retinal tissue. In the right eye there is no vision, and light perception only in the outer field. In the left, fingers are counted at $2^1/_2$ meters.

From the history and present appearances it would seem that in this case there had been a plastic inflammation of the orbital contents with cicitricial contraction which binds some of the muscles in the mass and limits their action. There has also been an absorption of much of the orbital fat. It hardly seems likely that there has been a fracture of the floor of the orbit, as no account is given of a bleeding from the nose, which Lang regards as an important symptom of that condition. That a pressure severe enough to set up an orbital cellulitis and even cause a rupture of the retinal vein, should not have left more evidence of injury upon the globe itself is a remarkable feature of the case, as it is in most instances of the kind that have been reported.

NITRIC ACID AS A CAUTERY IN CORNEAL ULCERS.

BY J. S. JOHNSON, M.D., ANN ARBOR, MICH.

TO discuss the treatment of corneal ulcers would be equivalent to writing a text-book chapter and is further-reaching than my intent or desire. But it is generally conceded that a certain class of corneal ulcers require such treatment as constitutes cautery of some sort and degree; it may be the actual cautery or some active chemical agent.

The immediate results which we seek to obtain by any cautery are, primarily, destruction of necrotic tissue, stimulation to repair and, perhaps, incidentally antisepsis by the destruction of germs. The ultimate results desired are healing of the ulcer as rapidly as possible with the least possible opacity. Of all the different forms of cautery we have remaining in common use practically only two—the electro-cautery and silver nitrate. One of the chief desiderata of a corneal cautery of any kind must be that it shall be under our control and that we must be able to measure and limit its action. This is the test which has condemned most chemical cauteries and which even the electro-cautery has not passed to everyone's complete satisfaction. Between the two methods of applying it, namely, to apply the cold button to the ulcer and then turn on the current until the desired heat and effect are obtained, and the other method of making a quick and possibly erratic dab at the ulcer with a cherry-red electrode, you have to contend on the one hand with the possibility of overdoing the business by the first method, and on the other hand of not cauterizing the precise part desired. Both methods have their advantages, but neither is free from objection. Again, every practitioner does not have a battery or a transformer enabling him to use it, and even if he has them in his office they can not be carried about. Desiccation of the cornea, or even deeper parts, singing of the eyelashes, etc., frequently occur, and are undesirable. Furthermore, the laity sometimes object to having "red-hot irons thrust into their eyes." Against silver

nitrate the objection is quite universally raised that the cicatrix is apt to be opaque.

A desirable cautery, then, may be said to have these qualities: It must produce the desired destruction of necrotic tissue and be stimulating to reparation; its action must be under perfect control; it must not leave an opaque cicatrix; it must be painless and the reaction moderate. If it be inexpensive and easily obtained, and free from most of the objectionable features above alluded to, this is so much more in its favor.

I am confident that in nitric acid we have an agent which fairly well fills these requirements if properly used. About ten years ago a friend first called my attention to a possible method of employing it as a corneal cautery. It was just what I had been in need of and I at once began to use it. It has more than fulfilled my most sanguine expectations. I have used it in hundreds of cases with the best possible results. I have induced several others to use it and they all report similar success. My cases have included a number of serpiginous ulcers and at least one case of marginal ulceration completely circumscribing the cornea and involving it deeply.

My method is this: Make a dilution of the chemically pure acid, varying in strength from 9 to 15 per cent, according to the effect desired. From some fine-grained soft wood shape a point suitable to the case. It may be round, flat, spoon-shaped or quite pointed, as indicated by the size, shape or situation of the ulcer. This wooden applicator is then thoroughly saturated with the dilute acid, care being exercised that no drop of the fluid depends from it or any material excess of the fluid adheres to it. Having cocainized the cornea, apply the saturated point deliberately to the ulcer, watching the effect until the whitening of the destroyed tissue shows that you have obtained the desired result; then wash with water or saline solution. The separation of the slough is speedy, and the employment of ordinary methods of after-treatment is not to be interfered with.

As a rule, the application is painless and the reaction moderate. The opacity of the cicatrix is as slight as by any other method, if not less. The remedy is inexpensive, easily accessible and can safely be repeated if necessary. I have had the objection raised that it is dangerous and not well un-

der control; it is perfectly safe and under the most perfect control in every way, and best of all, it is effectual. It is worthy of careful and impartial trial. I advocate it only after what must be admitted to be full probation, and because it seems to me to be pretty nearly without any champion, apparently because unknown. I do not wish to be understood as arguing or expecting it to displace the electro-cautery, but it is certainly a valuable addition to our somewhat limited resources for combating one of the most frequent and stubborn corneal affections.

I regard the exact method of application of vital importance, in order to limit its action and keep it under perfect control.

A WATER SCREEN FOR OPHTHALMOLOGISTS.[1]

BY P. DE OBARRIO, M.D., BERLIN, GERMANY.

SPENCER tells us, that in the order of time ornament preceeds usefulness. This idea is so deeply rooted in the minds of man that a Patagonian Indian would spend more physical and mental energy for the acquirement of colored pigments to ornament his body with than he would for the purpose of sheltering his naked form from the bitter hardships of an arctic winter.

My object has been to produce a useful apparatus the æsthetical side of which has been of very secondary importance.

A great number of screens is in existence at present all of which have many inconvenieces, principally that they do not protect in a convenient way from the annoying heat of our gas-light, and it is necessary at every moment to move the apparatus to one side whenever oblique illumination is to be made use of. Such metallic screens, after a short exposure to the heat of a lamp become in turn heated in such a way that their presence is more annoying than useful.

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[1]Presented to the Berlin Ophthalmological Society, March 23. '99.

Everyone who has had some experience in a clinic where he is required to examine a considerable number of patients in one afternoon, has, principally during the summer months, felt the necessity of having some useful contrivance that might protect him as well as the patient against this heat. If the heat could be avoided without interfering with the illumination, an ideal condition would result.

I have tried to do away with the different inconveniences of the older screens and to produce an apparatus which may be used as an opaque body, as a perfect screen against all rays, the luminous ones as well as those of heat, and which when necessary will permit the passage of the luminous rays while warding off completely the hot ones. (See figure).

The apparatus, as shown in the illustration, consists of a solid iron stand with a broad base; from the center of the round base rises a hollow metallic cylinder containing a steel rod with screws as a support to a thin metallic case, into this a glass case fits, which measures about 25×20×3 cm., and is intended to contain water. On one of the sides of the glass case, on its upper margin, a curtain of black cloth is attached, having a spring arrangement, such as is used on window shades.

This apparatus can easily be moved in all directions and

be rotated on its vertical axis, but it is intended to be made stationary.

The water case, with its curtain, can be raised or lowered as may be desired or as circumstances may require, by means of the central rod in the cylinder and fastened with a side screw.

Having been placed on the table in a convenient position, between the luminous source and the patient's head, and the curtain being lowered, the apparatus serves as an opaque body shading off not only the light, but also heat rays. This is the way to proceed in order to make the ophthalmoscopic examination in the inverted image, which can be prolonged indefinitely, since the patient suffers no discomfort from the heat. In case of performing the examination with the erect image, the screen is placed in a somewhat oblique position; with this precaution the examination can be made without any difficulty.

For oblique illumination the apparatus is of still greater advantage. In this case, as in the previous ones, the screen remains in place, the only thing to be done is to touch the curtain spring and allow the curtain to roll up, thus permitting the passage of the luminous rays through the clear water, and preventing entirely the passage of any heat.

The apparatus has been solidly constructed by Mr. G. Sedow, of Berlin, according to my directions. Each single part can be separated from the others in such a way as to permit of a solid and secure package for transportation.

The manufacturer has succeeded in producing an apparatus the price of which places it within the reach of all.

This apparatus has been in use for a long time and has rendered good service, as is proven by the great number which are now in use.

CLINICAL MEMORANDA.

A CASE OF EPITHELIOMA OF THE EYELID, WITH MICROSCOPICAL SECTION OF THE TUMOR.

BY H. MOULTON, M.D., FORT SMITH, ARK.

EPITHELIOMA appears, perhaps, more often on the eyelids than elsewhere. The lower lid is its favorite site. The case I here describe is of special interest, because:

1. Of its location on the upper lid.
2. Its early recognition before ulceration began.
3. Because of the microscopical specimen, I am able, through the courtesy of Dr. Epler, to present, in proof of its character.

January 3, 1899, Mrs. B. F. A., aged 61 years, consulted me for a slight conjunctivitis. A small, wart-like excrescence, no larger than a pin's head, was observed on the margin of the upper lid about 1 cm. from the punctum lachrymale; it occupied the space between the free edge of the palpebral conjunctiva and the lashes, in such a position that in the movements of the lids it touched the bulbar conjunctiva and the cornea.

A collyrium of sulphate of zinc relieved the conjunctivitis, which, however, showed a disposition to recur at intervals. In the meantime the little tumor increased in size, and early in March its removal was consented to; but the operation was deferred, owing to the development of erysipelas of the scalp, which was treated by Dr. E. H. Stennson.

Early in April the case was considered safe for operation, which was accordingly done on the 8th, with the assistance of Dr. J. C. Amis. By this time the tumor had spread along the edge of the lid until its length was about 7 or 8 mm., its breadth 2 mm. and the elevation about 2 mm. Small crusts

were forming on its surface; it was movable upon the tarsal tissue, but owing to its pronounced increase in size and suspicious appearance, it was decided to make its removal thorough.

A 4 per cent. solution of cocaine was dropped into the eye and a few minims were injected into the lid with a hypodermic needle; a lid clamp was applied and the growth cut away, the incision being always beyond the growth, in healthy tissue.

A V-shaped gap was left in the skin and muscle down to the tarsal tissue, which was not molested. The broad part of the gap occupied the free border of the lid. Some of the conjunctival surface, and a broad tuft of eye-lashes were removed. The edge of the lid was now split on each side to allow the skin to slide, and three sutures closed the gap; the healing was smooth.

Up to the present there is no recurrence, whether there will be or not, further time will tell.

It is said that after thorough removal malignant tumors are less likely to recur in this situation than in others.

MEDICAL SOCIETIES.

PROCEEDINGS OF THE SECTION OF OPHTHALMOLOGY OF THE AMERICAN MEDICAL ASSOCIATION.

MEETING OF JUNE 6–9, 1899, AT COLUMBUS, OHIO., DR. C. A. WOOD, CHAIRMAN, IN THE CHAIR.

REPORTED BY H. MOULTON, M.D., OF FORT SMITH, ARK.

It is impossible in this report to give all the excellent papers the extended notice they deserve.

The Chairman's able address was in printed form and distributed among the members without being read. It dealt exclusively and in a happy manner with the question:

How may the Ophthalmic Section do the Most Effective Work?

The following papers were read:

Treatment of Trachoma by Cupric Electrolysis, by George F. Keiper, Lafayette, Ind.

Dr. Keiper applies a metallic copper electrode with a weak current (5 ma.) to the granulations, claiming a deeper penetration and more rapid cure than when the bluestone crystal is applied without electrolysis.

Discussed by Drs. Huizinga and Lucien Howe. The latter thought that $^1/_2$ to 1 ma. was a strong enough current to use when applying the copper to the lids.

Seeing the Capillary Circulation in One's Own Retina, by O. E. Norton, Lewiston, Me.

The author minutely described an entoptic phenomenon observed by looking at the clear sky through a piece of blue glass, which is said to be distinct from muscæ volitantes.

Discussion.—Dr. G. M. Gould has not seen the phenomenon nor made the experiment, but he can not understand how the media of the eye can magnify the shadows of the red

blood corpuscles sufficiently to be seen by the retina. He has been able to see the shadows of the capillaries themselves.

Dr. Jackson pointed out that a blood corpuscle in a capillary of the retina would, by its shadow, produce an image as large as itself on the retina, and feels sure that he has identified blood corpuscles in his own eyes. The conditions are very different from what they would be if the blood corpuscle being looked at was outside of the eye.

Nutrition of the Crystalline Lens and Its Relation to Cataract Formation, by Lewis Stricker, Cincinnati, Ohio.

Dr. Stricker advanced the idea that nutrition of the lens is promoted by the action of accommodation and that this beneficial influence must be much interfered with when age makes the lens hard and resistent. The subject was very learnedly dealt with in all its phases.

Dr. Thompson (Indianapolis) observed that slight opacities at the lower inner margin of the lens never develop into cataract. He had watched them many years.

Dr. Gifford (Omaha) confirmed Dr. Thompson's observations.

Drs. Ayres and Morrow also discussed the paper.

Excessive Myopia: When May We Operate and What May We Expect? by Andrew Timberman, Columbus, Ohio.

The author referred to a case of his own and to Von Hippel's 114 cases and concluded that the operation has come to stay in proper cases.

Quinine Blindness in a Young Child, by H. Moulton, Fort Smith, Ark.

The case was that of a child, 3 years old; 90 grains of the bisulphate of quinine were given in four days, and the characteristic symptoms of quinine blindness from ischæmia followed. The blindness lasted twelve weeks; yet recovery of fair central vision followed. The pathology as elucidated by DeSchweinitz and Holden was stated, viz, degeneration of the ganglion cells and nerve fiber-layers of the retina, followed by ascending degeneration of the fibers of the optic nerves.

Dr. DeSchweinitz agreed with the essayist in his description of the pathology of quinine blindness, and thought the original contraction of the blood vessels might be explained by the action of highly cinchonized blood on their local vasomotor apparatus. He had analyzed more than 100 cases of

quinine blindness. With one exception he thought Dr. Moulton's case was the youngest on record. Although the blindness from quinine was primarily often complete, recovery usually took place in human beings, although there commonly remained some contraction of the visual field, and the color-sense was deficient. Permanent blindness, however, had occurred, as in the cases of Claiborne and Calhoun. The therapeutic agents valuable in quinine blindness were nitrate of amyl, nitroglycerin, strychnia and bromide of potassium.

Dr. Savage referred to a case which was typical except that in the fields there were islands of vision.

Dr. Thompson thought the malarial poison might be a factor in the blindness in such cases.

Dr. Baker (Bay City, Mich.) recommended bromide of potassium as a remedy.

Dr. Minney (Topeka, Kan.) reported a case of permanent blindness from 80 grains of quinine.

Dr. Baker (Cleveland, Ohio) alluded to the fact that he had never seen blindness from quinine, even when given in large doses.

Secretion and Exudation Considered as a Factor in Diseases of the Eye, by John W. Wright, Columbus, Ohio.

Examination of the Vision and Color Sense of Railroad Employes, by C. H. Williams, Boston, Mass.

Dr. Williams exhibited test-type and a lantern with diaphragm exposing different colors for the test of vision which he had recommended and which had been adopted by the New Haven Railroad.

Dr. Gifford thought that all new railroad employes should be examined with the ophthalmoscope.

Dr. Allport thought these examinations ought always to be made by an ophthalmologist, not a non-professional employe.

Drs. Randall, Keiper, Jackson and Reynolds also joined in the discussion.

Report of Seven Cases of Retinal Sequelæ of Diseases Affecting United States Troops in Cuba and Puerto Rico, by W. K. Rogers, Columbus, Ohio.

Some Points in the Diagnosis and Treatment of Diseases of the Sinuses Adjacent and Accessory to the Orbit. An address by invitation by Charles Stedman Bull, New York City.

Dr. Bull, in part said: In frontal sinus empyema transillumination is very uncertain as a means of diagnosis. In operating he uses a small trephine and enlarges with a gouge, and, if necessary, opening into the other side with a gouge. Drainage is established into the nose. The external wound is, after irrigation, closed completely with sutures. Intra-nasal treatment alone is futile. In the maxillary antrum empyema is often caused by diseases of the teeth. He advocates a large opening in the canine fossa with cocaine; then through the internal wall of the antrum an opening, by a trephine, into the nose, and introduces a drainage tube so as to drain the antrum through the nasal opening and the nose. The opening in the canine fossa is then allowed to close. The speaker stated that the prognosis in all forms of orbital malignant tumors is bad, but especialy of those that originate in one of the sinuses.

Eye Troubles Attributable to Naso-Pharyngeal and Aural Disturbances, by Joseph A. White, Richmond, Va.

Dr. White's paper was an exhaustive resumé of the subject, in which timely attention was directed to its importance. As regards the pathological influence of the ear on the eye, from what we have before us, the author concluded that it really exists and is exerted by both direct and indirect propagation by way of the nerve tract and by the blood current.

Discussed by Dr. Holmes, of Cincinnati, Ohio.

Diseases of the Accessory Sinuses in their Relation to Diseases of the Eye, by J. H. Bryan, Washington, D. C.

Dr. Bryan's paper was read by Dr. Randall, of Philadelphia, Pa.

Analysis of Cases of So-Called Chronic Glaucoma, With Special Reference to the Visual Field, by George E. DeSchweinitz, Philadelphia, Pa.

The author especiall called attention to the occurrence of scotomata in chronic glaucoma and to the fact that these scotomata preceded a break in the field corresponding to their site. The rule that contraction of the field is greatest nasally does not hold good in a large number of observations. An average of 184 charts shows concentric contraction, or that the greatest contraction is as liable to be in one part of the field as another.

Discussed by Drs. Lyman Ware, Thompson (Indianapolis) and Connor.

Dr. Eugene Smith favored sclerotomy in the treatment of chronic glaucoma.

Dr. Tiffany corrects hypermetropia and applies dry electric heat and miotics.

In closing, the author advocated the careful investigation of the field before ordinary symptoms were manifest, with the hope of discovering some defect which would lead to successful prophylactic treatment.

Cyst of the Iris Following Iridectomy for Cataract Extraction, by S. C. Ayres, Cincinnati, Ohio.

Dr. Ayres excised the cyst, with recovery of the eye.

Dr. Clark reported an unusual case in which simple puncture cured without recurrence for seven years.

Dr. Dudley Reynolds had punctured a case in which panophthalmitis followed,

Experiences in Operations for Secondary Capsular Membrane, by J. M. Ray, Louisville, Ky.

Dr. Ray's paper was discussed by Drs. Thompson, Weeks and others.

Report of a Case in Which Both Eyes Were Lost From Intraocular Hæmorrhage After Cataract Extraction, by Albert R. Baker, Cleveland, Ohio.

Significance of Certain Rare Forms of Ametropia, by S. D. Risley, Philadelphia, Pa.

Dr. Risley spoke of the necessity of correcting in many cases the full amount of error in each eye where there is even great anisometropia, and even when one of the eyes has not been habitually used, in order to relieve local and reflex symptoms and check pathological changes in the fundus.

Management of Cases of High Anisometropia, by Edward Jackson, Denver, Col.

Dr. Jackson said it is almost always possible to do something to aid the worse eye even when a full correction is not acceptable. The speaker included cases of astigmatism, with differing axes, as well as cases of differing degrees of refraction under the head of ansiometropia, for differences in shape of the images in the two eyes are as annoying as differences in size. Often, in high anisometropia, partial correction of the difference must first be given and afterwards gradually increased. In H. of one and M. of the other eye, with a total

difference of not less than 12 D. the extraction of the lens of the myopic eye is suggested.

Astigmatism After Cataract Extraction, by F. C. Clark, Columbus, Ohio.

Dr. Clark presented facts and statistics tending to show that extraction preceded by preliminary iridectomy is less likely to be followed by marked astigmatism than is simple extraction. This superior result, as far as astigmatism was concerned, was obtained at a great sacrifice in perfect acuity of vision, there being only six cases with $^{20}/_{XX}$, when preliminary iridectomy was performed in the series of thirty cases as against eighteen when simple extraction was performed, yet the general average of vision is about the same by each method.

On Very High Astigmatism, by F. B. Schneidemann, Philadelphia, Pa.

The author, after discussing the subject in a general way, reported a case of high astigmatism which required:

R. $+ 2 \supset - 20$ c. axes 15°, V. $=^{16}/_{XXX}$.

L. $+ 2, - 20$ c. axes 178°, V. $=^{15}/_{XL}$.

This correction was worn with comfort.

Surgical Treatment of High Myopia, by H. V. Wuerdemann and W. R. Murry, Milwaukee, Wis.

The authors referred to the small per cent. of high myopes seen by American ophthalmic surgeons. The results of their personal experience and the study of the literature justify the claims made in favor of the operative treatment.

Dr. Rodgers (Providence, R. I.) doubts whether the field of usefulness of operative treatment of high myopia is as wide as is sometimes thought.

Drs. Savage, Hubbell, Hale, Lippincott, Connor, Allport, Young, Lautenbach and several others also joined in the discussion of the five preceding papers.

In closing, Dr. Risley wished to be understood as discouraging the operative treatment of high myopia

National Recognition of Eye-Strain Reflexes, by George M. Gould and Helen Murphy, Philadelphia, Pa.

The Papillitis Accompanying Brain Tumor, by John E. Weeks, New York City.

The author dealt with the subject in such an exhaustive and classical way that a just notice is not possible in this limited space.

Some Clinic and Pathologic Notes on Migratory Ophthalmia, by Harold Gifford, Omaha, Neb.

Dr. Gifford observed two cases from the first development of symptoms in the sympathizing eye. There was no sympathetic irritation preceding the outbreak of inflammation, and in spite of the failure to find germs in the injured and enucleated eyes the author holds, nevertheless, that sympathetic inflammation is an infectious process. His treatment is with large doses of salicylate of soda (15 grains every three hours).

Dr. Williams (Boston) had used aqueous solution of suprarenal capsule in the beginning of sympathetic irritation (?) dropped in the eye three times a day, with complete disappearance of symptoms.

Dr. Lippincott (Pittsburg Pa.) advocates subjunctival injections of bichloride of mercury.

The following are the titles of further papers read at this meeting:

Value of Cyctoplegia in Optometric Examinations, by C. M. Culver, Albany, N. Y.

Vasomotor Sedatives and Their Uses in Ophthalmology, by David W. Stevenson, Richmond, Va.

Demonstrations of Moist Specimens, Showing Relations of Accessory Sinuses to Orbit, by C. R. Holmes, Cincinnati, Ohio.

Concerning the Bacteriology of Acute Catarrhal Conjunctivitis, by C. A. Veasey, Philadelphia, Pa.

Mucocele of the Newborn, by Clark W. Hawley, Chicago, Illinois.

The Phorometer, or Maddox Rod; Which? by Alvin A. Hubbell, Buffalo, N. Y.

Dr. H. V. Würdemann, of Milwaukee, Wis., was elected Chairman for the ensuing year, and Dr. C. F. Clark, of Columbus, Ohio, Secretary.

PROCEEDINGS OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. SWANZY, F.R C.S.I., President, in the Chair.

THURSDAY, MARCH 9, 1899.

IMPLANTATION CYSTS OF THE IRIS.

MR. DEVEREUX MARSHALL recorded three cases of epithelial cysts of the iris which he had recently examined, and showed photographs in the lantern of the points of interest which each exhibited.

1. A boy, aged 12 years, whose eye was wounded eight years before. It remained quiet until three months before removal, since which time it had been painful and irritable. There was found to be a crescent-shaped scar of the cornea, to which the iris was adherent. At the bottom of the anterior chamber there was found a large cyst. On further examination the walls were found to be formed by the iris, which was split into two unequal parts; the iris itself was so atrophied that at one place the wall was composed solely of epithelium.

2. A youth, aged 17 years, whose eye was wounded several years ago with a piece of wood. It remained quiet until it received a severe blow two weeks before removal. A small cyst was then found at the upper and inner part of the anterior chamber. The anterior wall of this was composed of an extremely thin piece of atrophied iris lined with epithelium and adherent to Descemet's membrane. Its posterior wall was composed of the greater part of the thickness of the iris; the epithelium was laminated, and similar to that of the cornea.

3. A man, aged 29, whose eye was wounded some years before, and had recently become painful and quite blind. The eye was enucleated, and in the anterior chamber was found a small mass near the inner corneo-scleral junction It had developed in the muscular part of the iris. The cyst was found to be lined with epithelium which had undergone great proliferation, so much so that its cavity was filled with degenerated epithelial cells which had become shed, and having no place of escape had become collected together in the interior of the

cyst, thus giving rise to the dense white appearance noted during life. The epithelium in this case apparently arose from a portion of cutis which had become driven in at the time of the original accident, whereas in the other cases the epithelium of the cornea was almost certainly the cause of cystic development.

The question of cysts in general was shortly discussed, and some museum preparations of the eyes illustrating the subject were shown.

MR. TREACHER COLLINS said these cysts varied greatly in situation; they were sometimes found in the substance of the cornea, sometimes in the anterior chamber after cataract extraction, sometimes in the iris itself, being occasionally caused by development of the root-sheath of an eyelash carried into the eye. They were also found in the vitreous, beneath the conjunctiva, and in the orbit. They might be classified as deeply pigmented and unpigmented, the former ones being due to a separation of the two uveal layers of the iris, the latter, or unpigmented ones, being either mesoblastic, due to dilated crypts of the iris, or due to epithelial inclusion after injury, in which case their contents might be either clear or sebaceous, according to the source of the included epithelium.

GREEN VISION IN A CASE OF TABES DORSALIS.

MR. WORK DODD related the case of an artist, aged 32 years. In 1886 his sight was quite good; in 1891 he had diplopia, from which he recovered. His color vision remained good until 1897, and he complained of defective sight shortly before being seen in July, 1898. When first seen vision was R. E. $^{2}/_{LX}$, L. E. $^{1}/_{LX}$. He had Argyll-Robertson pupils, optic atrophy, and contraction of his visual fields, his gait was ataxic, and he had occasional trouble in passing water. In September, 1898, V. was reduced to R. E. $^{1}/_{LX}$, L. E. hand movements. He then saw everything a bright emerald-green; it appeared to him as if there was a green veil hung before his eyes, through which he saw everything; he occasionally saw rose-pink spots through the green veil in places. The color increased in intensity when he was tired, especially the rose-pink. He had also occasional sensations of very brilliant light.

Albuminuric Retinitis in a Child.

Mr. Arnold Lawson and Dr. Sutherland read a further note on a case. A girl, aged 12 years, was exhibited before the Society last year with advanced albuminuric retinitis in both eyes, and symptoms of chronic interstitial nephritis. Two weeks after she was shown to the Society she had uræmic convulsions and absolute blindness, which lasted some days. During the next few months she had headache and vomiting, but no more uræmia. In September she was readmitted to the hospital for cardiac failure; death followed. The whole duration of the illness had been a year and three-quarters. Post mortem both kidneys were found granular; the heart was hypertrophied, and there was a cerebral hæmorrhage into both ventricles. In the retina exudation of the usual type was found at the central region. Congenital syphilis was suggested as a cause.

Mr. Holmes Spicer thought the suggestion of congenital syphilis as a cause was interesting. He had now under his care a female, aged about 20 years, who had interstitial keratitis in both eyes a few years ago, and other evidence of congenital syphilis. In the last few months she had developed very marked sclerosis of her retinal arteries, which presented the typical gold-wire appearance; she had retinal hæmorrhages, and flocculent masses of retinal exudation. Albuminuria was also present.

In reply, Mr. Lawson said that Dr. Guthrie, who had made the post mortem examination, had found this condition present in children in many cases, and he believed it to be almost always due to congenital syphilis.

Strabismus Fixus.

Mr. E. Donaldson reported a case. A female, aged 46 years, had had convergent squint since childhood; the deviation was so great that the left cornea was almost hidden; under an anæsthetic the eye could not be drawn out, and it was impossible to reach the internal rectus to divide it. The other eye was also fixed in a strongly convergent position, but it was possible to divide the internal rectus; by separating Tenon's fascia freely from the globe the position of the eye

was much improved. Snellen has published some cases all of which were congenital; the condition has been named strabismus fixus by von Graefe, but the cause was unknown.

THURSDAY, MAY 4, 1899.

H. R. SWANZY, F.R.C.S.I., President, in the Chair.

CLINICAL EVENING.

TUMORS OF THE IRIS.

MR. A. M. THOMPSON showed a microscopic section of a tumor from a case which had been shown at a previous meeting of the Society. The portion of the iris containing the tumor was removed, and the patient now had V.=$^{6}/_{VI}$ in the eye. The tumor was probably a spindle-celled sarcoma.

MR. TREACHER COLLINS showed a case in which the tumor occupied the upper inner part of the iris, and the lens was cataractous. The patient was a woman, aged 63 years, who had had a black spot in the eye since childhood. The piece of iris was removed and the cataract extracted at the same time The growth consisted of large endothelial cells with sharply-defined nuclei. It resembled in structure pigmented moles of the skin, and was probably innocent.

MR. JOHN GRIFFITH thought Mr. Thompson's case was a myoma from the rod shaped character of the nuclei, and that Mr. Collins' case was a large round-celled sarcoma.

UNUSUAL FORM OF OPACITY OF CORNEA.

MR. TREACHER COLLINS showed an example of this condition. It was present in both eyes, but was more marked in the left. It had much the appearance of a broken cobweb stretched across the cornea; the lines were in the corneal substance. They were possibly the tracks of old blood vessels after interstitial keratitis, but they were very wide for blood vessels, and did not extend to the periphery of the cornea.

MR. JULER thought they were tracks of old blood vessels; there was a suspicion of scarring at the angles of the mouth

which he thought made previous interstitial keratitis probable.

MR. BREUER though they were the lines which were sometimes seen in the superficial punctate keratitis described by Fuchs.

MR. SILCOCK suggested that they might be blocked lymphatic vessels which had resulted in bands of fibrous tissues.

DR. HILL GRIFFITH asked if the possibility of the lines being due to a vegetable fungus had been considered.

VASCULAR FORMATION IN THE VITREOUS IN DIABETES.

MR. ARNOLD LAWSON showed a patient who had been known to be diabetic 3 years; his sight had failed 2 years in the right eye and 6 months in the left. The right lens was opaque; in the left eye there was at first a vitreous haze which obscured the details of the fundus. As this cleared there was found a connective-tissue formation consisting of feathery tufts proceding from a central stalk, richly supplied with blood vessels.

SLOUGHING OF CORNEA RAPIDLY FOLLOWING ON FRACTURE OF THE BASE OF THE SKULL.

DR. LEDIARD showed a man, aged 38 years, who had been knocked down by an engine. When first seen he was semi-comatose; he had right facial paralysis, the eye remaining open, severe scalp wound, and the escape of cerebro-spinal fluid from the ear; the fifth nerve was uninjured. Notwithstanding the care that was taken of him his cornea sloughed, and the eye had to be excised. The probable reason for the sloughing was the exposure of the cornea consequent on the facial paralysis, and the condition of semi-insensibility induced in the cornea by the partial coma.

PRIMARY CARCINOMA OF EYEBALL.

MR. SIMEON SNELL (Sheffield) showed this specimen. The patient was a man, aged 69 years. There was a history of an injury to the eye (cornea) 14 years before. When first seen

almost the whole of the cornea was involved in a nodulated, hard, irregular growth. Careful examination failed to disclose any growth elsewhere in the body. The eyeball was enucleated, the orbit cleared out, and chloride of zinc paste applied to the socket. The growth had perforated the globe posteriorly. Mr. Treacher Collins kindly examined the eyeball, and reported that the appearances of the growth were typically those of carcinoma, and that it originated within the globe, but in which structure it was impossible to say.

MR. COLLINS said that it was formerly the opinion that growths primarily occurring in the eye were sarcomata or gliomata, but it was known now that carcinomata occurred starting from the tubular glands of the ciliary body; they might also start in the pigment epithelium of the iris and choroid; he thought Mr. Snell's case probably originated in the ciliary body.

MR. SILCOCK had seen orbital tumors having a structure similar to the one in question; possibly these might be endotheliomata and not epitheliomata.

MR. BRONNER remarked that as visceral carcinoma might exist for a long time without revealing itself, one ought to be cautious in accepting a carcinoma in the eye as a primary growth.

MR. JESSOP asked whether there had been any recurrence.

CARCINOMA OF THE EYE SECONDARY TO THAT OF THE LUNGS.

MR. JOHN ROWAN showed a specimen of scirrhous cancer occupying the lower part of the fundus, and detaching the retina; its origin was in the glands or mucous membrane of the bronchi; the primary and secondary growths were similar in character.

TRAUMATIC PTOSIS.

MR. SNELL showed a stereoscopic photograph of a case of traumatic ptosis.

PIECE OF GLASS LOCALIZED IN THE EYE BY MEANS OF THE ROENTGEN RAYS.

MR. MACKENZIE DAVIDSON showed this specimen. A fragment of a Florence flask, during a chemical experiment,

went into the patient's eye. It was shown by the *x*-rays quite clearly, but was less dense than metal in appearance. The only modification of the method used in this case was that the rays were passed obliquely through the eye, so as to avoid bone as much as possible.

Eyeball with Fragment of Steel Lodged in Its Coats.

Mr. George Mackay showed this specimen with skiagraphs. A traumatic cataract had been formed, which was removed, leaving the media clear. The position of the foreign body could be seen by the ophthalmoscope. As it appeared to be encapsuled it was not interfered with; after an interval of quiescence the vision failed, and the eye became irritable; the iris had a tawny brown color. Removal of the foreign body by the magnet failed. After enucleation it was found fastened to the coats of the eye. In order to trace the parts of the eye discolored by the rust of the iron Prussian blue was formed with it; the corneal epithelium and the filtration angle were the parts most widely stained. Descemet's membrane escaped.

Solid Œdema of the Eyelids.

Mr. Anderson Critchett showed a case. The patient had erysipelas in 1894, followed by another attack later. Fulness of the lids followed; they were treated by pressure, puncture and incision, without benefit; the mass had been excised by Mr. Higgins, but had recurred.

Mr. Eyre had photographed the same case five years before. At that time the upper lids were more swollen than the lower. He had seen seven similar cases, all of them after erysipelas.

Messrs. Frost, Silcock and Mackay spoke of cases.

Artificial Eyes.

Mr. Critchett also showed samples of Snellen's artificial eyes.

Filamentary Keratitis.

Dr. Rayner Batten showed a woman, aged 29 years, who

had had chronic conjunctivitis one year. A number of threads were seen hanging from the surface of the cornea near its edge, they were about 1 mm. long, and consisted of a twisted rope of epithelium. No vesicles were seen. They were symmetrical in the two eyes.

Orbital Tumor.

Mr. Juler showed a case. There was a history of proptosis for two months. A fluctuating tumor was felt at the upper inner margin of the right orbit; dark blood escaped on tapping it; he thought it was a vascular sarcoma.

Mr. Lawford asked if the nose had been explored, as the case might possibly be a distended ethmoidal cell.

Mr. Lang had met with a similar case consisting of broken-down nævoid tissue.

Thursday, June 8, 1899

H. R. Swanzy, F.R.C.S.I., President, in the Chair.

A Case of Obliteration of a Branch of the Retinal Artery Following Frequent Attacks of Temporary Amblyopia.

Dr. C. E. Beevor and Mr. Marus Gunn read this paper. The patient, a man, aged 34 years, had suffered since childhood from temporary attacks of amblyopia lasting a few minutes, and involving especially the right eye, but unattended by headache. About 9 months ago, after violent exercise, he had an attack in which the blindness of the right eye was followed by loss of the superior half of the visual field of the right, which had persisted, and part of the periphery of the lower half of that field. At present, on ophthalmoscopic examination, there was atrophy of the lower half of the right disc, with shrinking of the branches of the lower half of the arteria centralis retinæ. He had occasional attacks affecting the left eye, and in one he temporarily lost the lower half of the field of vision of the left eye. There were no other symptoms except that the right knee-jerk was very deficient and difficult to obtain. The case was considered to be an unusual condition of

complete obstruction of a retinal artery that had previously been liable to recurrent temporary constriction.

Recovery of Sight After Partial Occlusion of the Central Artery.

Mr. J. B. Story reported the following case: Mr. H., aged about 35 years, was attacked with blindness of the left eye on December 26, 1898, and was first seen on January 5, of this year. Externally the eye was normal in appearance, but the pupil did not act to light; vision was reduced to a perception of light. The optic disc was hazy, the arteries were thread-like, and there was a slight cherry color at the macula, as is seen in typical cases of embolism. Inhalation of nitrite of amyl produced some redness of the fundus, and arterial and venous pulsation could be produced by pressure. The patient was apparently healthy and was not rheumatic; his heart was not examined. Iodide of potassium was ordered internally, with daily inhalations of amyl nitrite. After six days vision had become fingers at 3 m; small doses of corrosive sublimate were ordered. Two weeks after (January 23) the pupil was active and vision had become $^{5}/_{xx}$; the improvement had begun suddenly four days before. On February 7, vision had further improved to $^{5}/_{vii}$, and on April 18, it was $^{5}/_{v}$; ophthalmoscopically the eye appeared normal except for a faint perivascular line along the inferior retinal artery.

Miss J. W., aged 39 years, was first seen on February 20, of this year. The left eye had suddenly become blind a week before; the heart was normal, and her health was good. In the eye V. was fingers at 5 m., the pupil was inactive to light; the retinal arteries were reduced to threads. There was some œdema of the retina, and the veins were beaded. Trinitrine was prescribed. On March 8, there was no change in vision or in ophthalmoscopic appearances. On March 17, the pupil was active and vision was $^{6}/_{ix}$. On May 1, vision was $^{6}/_{viii}$, the left disc was slightly pale, and its edges slightly blurred; the arteries were small and the veins normal. The authors regared both cases as examples of partial occlusion of the retinal artery.

Mr. Thompson asked if endarteritis obliterans had been

excluded as a cause; it had been maintained that all cases of so-called embolism of the central artery had this cause.

MR. ARGYLL ROBERTSON spoke of a case in which there had been temporary obscuration in an eye; it was similar to Benson's case read before the Ophthalmological Congress at Edinburgh. He asked if Dr. Beevor had noticed the reaction of the pupil.

MR. JOHNSON TAYLOR spoke of a case in which there had been temporary blurring of the vision.

MR. PRIESTLEY SMITH said the point of practical importance was the warning frequently given by the transient nature of the earlier attacks in such cases, so that if the cause could be discovered we might prevent the onset of blindness. Many of the cases were reflex, and from overloading of the stomach; others were due to a blood condition, and were possibly of the same nature as migraine. He advised the use of salicylates and copious draughts of hot water; he also suggested the immediate use of antipyrin in such cases.

Messrs. Juler, Cant and Gunn spoke, and Dr. Beevor replied.

TRAUMATIC DIVISION OF BOTH OPTIC NERVES.

MR. KENNETH SCOTT related this case: An Egyptian, aged 23 years, was sent to the Kasr-el-Aini Hospital at Cairo after attempted suicide. A bullet had entered the right temple, transversed the head and passed out at the left temple; it had passed from side to side below the base of the skull in a direction downward and forward. Both eyeball were completely protruded and lay on the cheeks, the right one hangind down 19 mm. and the left one 15 mm. Both eyes were dark discolored and flattened; it was obvious that both optic nerves had been torn across and the globes had been ruptured. The damaged eyes were removed, and it was found that both orbits had been traversed by the bullet, and the base of the brain had been shattered as there were fragments of bone and brain matter in the right orbit. The patient did not long survive the injury.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Preliminary Program.

The Thirty-fifth Annual Meeting of the American Ophthalmological Society will be held on Wednesday and Thursday, July 19 and 20, 1899, at the Pequot House, New London, Conn.

Titles of the following papers have been forwarded to the Secretary:

1. A case of primary Tumor of the optic nerve, by Dr. Buller.

2. History of a case of removal of an orbital Sarcoma with preservation of normal vision, by Dr. Oliver.

3. A case of primary non-pigmented Sarcoma of the left upper lid, by Dr. Veasey.

4. An instrument intended to facilitate the operation of Capsulotomy, by Dr. Buller.

5. A case of expulsive-intraocular hæmorrhage after preliminary iridectomy for Cataract, by Dr. Randolph.

6. On anomalies in the Epithelial layer of the crystalline lens and anterior polar Cataract, by Dr. Alt.

7. Report of three cases of magnetic extraction of steel from the eyeball through the point of entrance, by Dr. W. B. Johnson.

8. A cyst of the Vitreous (with patient), by Dr. Tansley.

9. Congenital inefficient external Rectus and Binocular Vision (with patient), by Dr. Tansley.

10. Demonstration of office stereoscope, by Dr. R. H. Derby.

11. A case of sympathetic ophthalmia due to Glioma Retinæ in the fellow eye, by Dr. Alt.

12. Cases of Metastatic Panophthalmitis, by Dr. Millikin.

13. A case of spontaneous Rupture of the Eyeball, by Dr. Millikin.

14. Multiple rupture of sphincter of Iris with subsequent development of myopic astigmatism, by Dr. Mittendorf.

15. Some unusual cases of Secondary Glaucoma. by Dr. Bull.

16. Normal pupillary reaction—with microscope for its measurement, by Dr. L. Howe.

17. A clinical study of the ocular symptoms found in Posterior Spinal Sclerosis, by Dr. Oliver.

18. Report of a case of Keratectomy, by Dr. Kollock.

19. The value of Acoin as a local anæsthetic in Eye Surgery, by Dr. Randolph.

20. More uniform Tests for Vision, Color-Sense and Hearing, by Dr. Williams.

21. Injuries to the sight from blunt force applied near the orbit, by Dr. Spalding.

22. Remarks on the use of the wire shield and lid sutures in Cataract, by Dr. Prout.

23. A modified Perimeter, by Dr. Williams.

Members are requested to arrange for rooms direct with the Hotel management.

S. B. St. John,
Secretary.

BOOK REVIEWS.

DES VERRES PERISCOPIQUES ET DE LEURS AVANTAGES POUR LES MYOPES (PERISCOPIC GLASSES AND THEIR ADVANTAGE FOR MYOPES). By DR. F. OSTWALT, Paris; with a preface by C. M. GARIEL. Paris. 1899. George Carré et C. Naud, Editeurs.

In this volume the well known author gives a mathematical explanation, why periscopic glasses are to be recommended, especially to myopes, while they are of no advantage, according to him, in cases of hyperopia. The details must be studied by the reader. ALT.

PAMPHLETS RECEIVED.

"Headaches," by A. D. McConachie, M.D.

"An Auxiliary Skiaskope," by E. C. Ellett, M.D.

"Nosophen in Ophthalmology," by K. Hoor, M.D.

"Infarction of the Heart," by W. Baumgarten, M D.

"Clinical Tests of New Remedies," by S. S. Bishop, M.D.

"Annual Report of St. Francis Hospital," Columbus, Ohio.

"The Cause of Retinitis Pigmentosa," by W. Schoen, M.D.

"Cataract; Its Cause and Prophylaxis," by W. Schoen, M.D.

"A New Method of Autophthalmoscopy," by P. de Obarrio, M.D.

"Otology; Its Relation to General Medicine," by C. G. Lewis, M.D.

"Strabismus, Squint or Cross-Eye," by H. S. Paine, M.D.

"The Panas Operation for Strabismus," by D. B. St. J. Roosa, M.D.

"Recent Therapeutics in Ophthalmology," by R. S. Patillo, M.D.

"Extirpation of the Lachrymal Sac and Gland," by C. R. Holmes, M.D.

"New Instruments for Excision of the Tonsils," by W. H. Peters, M.D.

"Electric Dry Heat in Ulceration of the Cornea," by F. D. Tiffany, M.D.

"The Sterilization of Instruments with Formaldehyde," by H. O. Reick, M.D.

"A Case of Cavernous Angioma of the Conjunctiva," by H. O. Reick, M.D.

"Cerebral Hæmorrhage with Temporary Glycosuria," by R. B. H. Gradwohl, M.D.

"Note on Toxic Chromatopsia and Toxic Hysteria," by G. E. DeSchweinitz, M.D.

"Perichondritis and Necrosis of the Arytenoid Cartilage," by W. Scheppegrell, M.D.

"Grains of Experience Gleaned from Eye and Ear Practice," by E. C. Ellett, M.D.

"Report of the Hungarian Ophthalmic Literature of 1898, by E. von Grosz, M.D.

"Antinosine in the Treatment of Diseases of the Eye and Ear," by W. F. Coleman, M.D.

"Traumatism of the Eyeball, Involving the Crystalline Lens," by C. D. Wescott, M.D.

"Review of the Pathological Conditions Affecting the Lingual Tonsil," by E. C. Ellett, M.D.

"Blindness Following the Intoxicating Use of Jamaica Ginger.—Six Cases," by H. Woods, Jr., M.D.

"Manifestations of Syphilis in the Mouth," by L. D. Bulkley, M.D.

"Mastoid Complications of Exanthemeta in Children," by E. B. Dench, M.D.

"A Case of Foreign Body (Piece of Steel) in the Optic Nerve," by Ch. A. Oliver, M.D.

"Discussion of Ten Thousand Eyes Examined for Refractive Error," by G. C. Pardee, M.D.

"An Improved Method for the Removal of Intra-Ligamentous Cysts," by T H. Hawkins, M.D.

"The Influence of Irritation of the Localization in the Eye of General Disease," by W. Schoen M.D.

"Appendicitis or Salpingitis, with Complications, and a Report of Some Unusual Cases," by T. H. Hawkins, M.D.

"Restoration of the Conjunctival Cul-de-sac in a Case of Total Symblepharon, by Means of Thiersch Skin Grafts," by C. H. May, M.D.